

OFFICE OF THE PROVOST

REGENTS PROFESSOR AWARD

Rajarshi “Raj” Banerjee

Materials Science and Engineering



Dr. Banerjee is presently a University Distinguished Professor in the department of materials science and engineering at UNT. After spending the first six years of his academic career at the Ohio State University, Dr. Banerjee moved to UNT in 2004. Since then he has been one of the most productive members of UNT’s academic community, bringing in over \$10M of funded research programs, publishing over 250 peer-reviewed papers, and establishing UNT’s unique and state-of-the-art Materials Research Facility (MRF), of which he is also the director. His primary research focus is on advanced metallic and functionally-graded composite (or hybrid) materials for aerospace, energy, and biomedical applications, including, titanium base alloys, nickel (and cobalt) base superalloys, magnetic alloys, and high entropy alloys. The use of advanced characterization and analysis techniques, spanning all the way from angstroms to millimeters, constitute a common thread tying his multiple research activities. These techniques are used to identify the underlying fundamental physical mechanisms that lead to the outstanding balance of properties in modern day engineering materials. Additionally, he has pioneered processing of functionally-graded materials, as well as in situ composites, using metals 3D printing and additive manufacturing techniques such as laser engineered net shaping (LENS). In fact, he established the first metals 3D facility at UNT back in 2006. His research has been funded by the National Science Foundation, the Air Force Research Laboratory, the Army Research Laboratory, the national network for manufacturing innovation (NNMI) under the Lightweight Innovations for Tomorrow (LIFT) consortium, and multiple industries. Has graduated 10 Ph.D. and 10 M.S. students, and is active in teaching graduate and undergraduate courses in materials science and engineering at UNT. He has over 250 publications in peer-reviewed journals, over 7500 citations, and an H-index of 47. Dr. Banerjee also holds appointments as an adjunct professor in materials science and engineering at the Ohio State University in Columbus, Ohio, and as a visiting professor at Nanyang Technological University, Singapore. He is a passionate teacher and educator, and loves spending a lot of his time with graduate and undergraduate students, taking care to explain to them and helping them explore the fascinating world of materials.